

REMARKS/ARGUMENTS

Applicants wish to thank the Examiner for kindly extending an interview on October 28, 2008. During the interview, the references of record and the distinguishing features of Applicants' embodiment were discussed. These features are also mentioned herein.

In paragraph 2 of the Office Action, the Examiner objected to claims 11, 12 and 18 due to various informalities. Applicants have amended the claims as shown and believe they are now in good form.

In paragraphs 3 and 4 of the Office Action, the Examiner rejected claims 11, 15, 16, 18, 19 and 22 under 35 U.S.C 102(b) as being anticipated by Hathaway (US 6,352,227). In view of these claims as now presented and for the reasons discussed below and during the interview of October 28, 2008, Applicants believe these claims are now in good form and not anticipated by Hathaway.

Hathaway discloses a segmented, ball jointed support, which is an improvement over other support devices which make use of ball joints to provide universal flexibility of the support. This support is made up of a plurality of individual hollow segments, each segment shaft having a male ball at one end that is received by an adjacent segment's female socket. The socket is sized to fit snugly over the received ball. A spring-detent arrangement within the segment shaft acts against a receiving hole at the top of the corresponding ball. The spring-detent allows the ball joint to be "snap returned" to a straight, axially aligned arrangement. The spring-detent also provides greater joint stability over a longer length of assembled support, without compromising useful flexibility of the support. A radial compression device around the segment socket maintains appropriate joint tightness and compensates for joint wear. The segment shafts are manufactured of varied lengths to accommodate differing flexibility needs of the assembled support, depending on its intended use. The support can be free standing or made part of, or integrated into, another system.

There are several distinguishing features of Applicants' invention as now claimed in claim 11 that Hathaway clearly does not teach. For example, note that the claim 11 requires that the first pin have a pin dimension that is at least as large as the recessed dimension. The claim further requires that the first pin be integrally formed with the first ball in a single one-piece construction and that the second ball have a second pin integrally formed with the second ball in a single one-piece construction.

In contrast, the ball and pins of the Hathaway reference are not integral. If they were integral, it would destroy the teaching and operation of the reference. Note that the pin C, as labeled by the Examiner, must be compressible with respect to the ball B so that the first ball can pivot with respect to the second ball, for example, if the user wants to change the position of the lamp. An integral ball and pin would eliminate the spring and the device would not work.

Again, Applicants' claim 11 clearly requires that the pin and ball be an integral one-piece construction.

For all the foregoing reasons and in view of claim 11 as now presented, Applicants believe that these claims 11, 15, 16, 18, 19 and 22 cannot be anticipated by the Hathaway reference.

In paragraph 5 of the Office Action, the Examiner rejected claims 11, 16, 19 and 22 under 35 U.S.C 102(b) as being anticipated by Thompson et al. (US 6,719,312). In view of these claims as now presented and for the reasons discussed below and during the interview of October 28, 2008, Applicants believe these claims are now in good form and not anticipated by Thompson et al.

Thompson et al. discloses an apparatus for use in a vehicle comprising a first steering link (30) having a first socket (54), a second steering link (34) having a second socket (70), and a steering knuckle (20) having a through hole (44). A stud (90) comprises first and second stud parts (92, 94). The first stud part (92) comprises a first ball portion (100) received in the first socket (54) to connect the first stud part for pivotal movement relative to the first link, and a shank portion (108) projecting

from the first ball portion. The second stud part (94) has a second ball portion (132) received in the second socket (70) to connect the second stud part for pivotal movement relative to the second link. The second stud part (94) has an axially extending through opening (130). The shank portion (108) of the first stud part (92) extends through the through hole (44) in the steering knuckle (20) and through the through opening (130) in the second stud part (94).

Note in the Thompson reference that the second ball does not have a pin integrally formed at all and that the first ball portion 100 does not have a recess. Moreover, note that the first pin 100 fails to have a pin that has a dimension that is substantially equal to the dimension of the recess unlike Applicants' claim 11.

In further contrast, Applicants have also added the requirement of at least one of a stop or seal mounted in operative relationship with the second ball.

For all the foregoing reasons and in view of claim 11 as now presented, Applicants believe that Thompson cannot anticipate claim 11 as now presented. Claims 16, 19 and 22 depend directly from claim 11 and are also believed to be in condition for allowance.

In paragraph 6 of the Office Action, the Examiner rejected claims 11, 13, 15, 16, 19 and 22 under 35 U.S.C 102(b) as being anticipated by Kimura et al. (US 5,046,764). In view of these claims as now presented and for the reasons discussed below, Applicants believe these claims are not anticipated by Kimura et al.

Kimura et al. discloses a universally articulable supporting sheath comprising an interconnected series of links, each having a convex spherical surface at one end, and a concave spherical surface at its opposite end. The concave and convex surfaces mate with one another to form the sheath. Special links having branch openings may be provided. Various forms of waterproofing seals are provided, including O-rings, axially compressed rings, flexible belts, and ridges on the spherical surfaces. The links can be fitted together by thermal expansion. However, an axially split link is also described, which comprises two parts which snap together. The split

parts may be molded as a unit with an integral thin wall hinge. The bending characteristics and bending radius of a sheath can be modified by insertion of spacers between the links at selected locations, or by the insertion of pins into radial holes provided in the links. Spacers with tongues may be used to prevent rotation of the links about the sheath axis, while allowing unidirectional articulation. Projections on one of a pair of mating spherical surfaces can be engaged with holes, slots or recesses of rectangular or other shapes to produce various limits on articulation and rotation. A single link may be provided with several alternatively usable holes, recesses and the like. The outer surface of a link can be provided with an axial extension engageable with a surface of an adjoining link to prevent back bending, or to prevent bending altogether.

Kimura does not show a first pin integrally formed with a first ball. Even if one were to consider the portion 11 of Kimura to be a ball and the portion 9 to be a pin, it is clear that the reference shows that the pin has a dimension that is significantly larger than the recess of the ball.

More fundamentally, note that Applicants' claim 11 requires a first ball cup that is received on the first ball and the second ball cup that is received on the second ball. No such ball cups exist in the Kimura reference. In order to further focus the claim on Applicants' primary environment for the invention, Applicants have amended the claim to recite that the first ball cup is mounted on the first ball and is received in a part of a drive mechanism for a windshield wiper. Similarly, the claim has been amended to recite that the second ball cup is received on the second ball and the second ball cup is received on a part of a drive mechanism for a windshield wiper.

Finally, note that the claim 11 has further been amended to recite that the second ball becomes rigidly secured to the first ball after the second ball is mounted on the first ball.

For all the foregoing reasons and in view of claims 11, 13, 15, 16, 19 and 22 as now presented, Applicants believe that these claims cannot be and are not anticipated by Kimura et al.

In paragraphs 7 and 8 of the Office Action, the Examiner rejected claims 20 and 21 under 35 U.S.C 103(a) as being unpatentable over Hathaway (US 6,352,227). In view of these claims as now presented and for the reasons discussed earlier and also for the following reasons, Applicants believe that these claims are not unpatentable over Hathaway.

Again, Applicants note that the Hathaway reference fails to teach of an integral pin and also fails to teach of a rigid securing of the second ball to the first ball. Applicants respectfully submit that Hathaway requires that the diameter of the respective balls be the same. In this regard, note the Hathaway reference requires that the segments are molded or machined of a rigid, relatively light-weight plastic, such as PVC or polyethylene. The sockets 14 of each segment shaft 10 have a spherically curved inner surface adapted for receiving of the spherically curved ball 12 of an adjacent segment. The reference states that the close tolerance between the sizes of the two surfaces is such that the ball 12 is primarily held in place by a conjoining socket 14 by a friction fit. If one were to change the size of the balls as recited in Applicant's claim 21, the device would simply not work because the ball and socket would not mate, or if the ball could be received in the socket, no friction fit could be provided. Moreover, it would require a plurality of different sizes of balls and sockets, which would clearly increase the cost of manufacture and ease of assembly of the Hathaway reference.

For all the foregoing reasons and for the reasons stated earlier relative to the Hathaway reference, Applicants believe that Applicant's claims 20 and 21 are not unpatentable over Hathaway.

In paragraph 9 of the Office Action, the Examiner rejected claims 20 and 21 under 35 U.S.C. 103(a) as being unpatentable over Thompson et al. In view of the

claim 11 as now presented and for the reasons discussed earlier relative to the Thompson reference and also for the following reasons, Applicants believe that these claims 20 and 21 are not unpatentable over Thompson et al.

Applicants respectfully traverse the Examiner's statement with respect to size. Here, Applicants have clearly recited that the first pin have a pin dimension that is at least as large as the recessed dimension. When the second pin is received in the first recess of a first ball, the second ball becomes rigidly secured to the first ball. Applicants have amended claim 11 to more clearly focus on this feature of the invention. Changing the relative sizes of the balls themselves enables the device to accommodate ball cups of different sizes. If one were to change the sizes of the balls in the Thompson, et al. reference, the steering linkages would all have to be changed, which clearly destroys the teaching of the Thompson et al. reference. Applicants respectfully submit that the Examiner is using hindsight and the teaching of Applicants' disclosure to modify the Thompson et al. reference and such use is improper.

For all the foregoing reasons, and for the reasons stated earlier herein relative to the rejection of claim 11 and the Thompson et al. reference and in view of the claim 11 as now presented, Applicants believe that claims 20 and 21 are not unpatentable over Thompson et al.

In paragraph 10 of the Office Action, the Examiner rejected claims 20 and 21 under 35 U.S.C 103(a) as being unpatentable over Kimura et al. (US 5,046,764). In view of these claims as now presented and for the reasons discussed earlier, Applicants believe these claims are not unpatentable over Kimura et al.

In addition to the reasons stated above relative to the Kimura reference, Applicants further submit that there is no suggestion of changing the ball sizes in the Kimura reference. Indeed the reference appears to teach away from such a suggestion. For example, note that the sheath in the Kimura et al. reference is designed to receive a cable and that the sheath has various links 6. Each of the links

is inserted in an adjoining link by spherical concave and convex surfaces of the links. In order for such mating to occur, the concave surface of an adjoining receiving link is adapted to receive the convex surface of the mating link.

Again, Applicants respectfully submit that if the ball sizes of the various links were changed, the device would simply not function as intended and would not interfit or mate as required by Kimura et al. Assuming arguendo that it would be obvious to change the ball sizes, then the ease of manufacture of the Kimura et al. device would be reduced and the cost of manufacture would be increased, especially in view of the different machining or molds that would be required to modify the links.

As mentioned earlier herein, the Kimura et al. device is clearly not intended for a windshield wiper environment and does not receive any ball cups, let alone ball cups that are received in a windshield wiper mechanism system.

For all the foregoing reasons, and in view of the claim 11 as now presented, Applicants believe that claims 20 and 21 are patentable over the Kimura et al. reference.

In paragraph 11 of the Office Action, the Examiner rejected claim 12 under 35 U.S.C 103(a) as being unpatentable over Thompson et al. in view of Maughan et al. (US 6,059,480). In view of these claims as now presented and for the reasons discussed earlier, Applicants believe these claims are now in good form and are not unpatentable over Thompson et al. in view of Maughan et al.

Maughan et al. discloses a composite stud having a shank with a recess at one end receives a stem formed on a ball. The stem and recess have any suitable shape and preferably a shape that prevents rotation of the ball relative to the shank. A further embodiment has a shank with an extension at one end for insertion into a bore in a ball. The extension is deformed to effect a positive connection.

In addition to the comments made earlier herein relative to the rejection of claim 11 over Thompson et al., Applicants respectfully direct the Examiner's attention to the Maughan et al. reference which is a composite stud that requires a ball portion

that includes a stem that is received in a recess of shank 22 to secure the ball 24 to the shank 22. Even if it would obvious to combine the references as suggested by the Examiner, the resultant combination would still fail to teach of the elements of Applicants' claim 11 because the resultant combination fails to teach of the various elements of Applicants' claim 11 from which claim 12 depends. In this regard, note that even the resultant combination would fail to teach of the first pin having a first dimension with the first dimension being at least as large as a recessed dimension of the first recess.

The resultant combination of references, even assuming they could be combined, would still not teach of the ball 24 in Maughan et al. or 100 in Thompson et al. having a recess. There would be no motivation to modify either Thompson et al. or Maughan et al., whether viewed alone or in combination, to provide a recess in the first ball as required by Applicants' claim.

For all the foregoing reasons and in view of the reasons stated earlier herein relative to the Thompson et al. reference and also in view of claim 11 as now presented, Applicants believe that claim 12 is not unpatentable over the cited references, whether viewed alone or in combination.

For all the foregoing reasons and in view of the claims as now presented, Applicants believe that the pending claims are neither anticipated by nor obvious in view of the cited references. Applicants accordingly respectfully request that the application now be allowed.

Applicants are filing concurrently herewith a one month extension of time.

The Commissioner is hereby authorized to charge any additional fees under 37 C.F.R. 1.16 and 1.17 which may be required by this paper, or to credit any overpayment, to **Deposit Account No. 50-1287**. Applicants hereby provide a general request for any extension of time which may be required at any time during the prosecution of the application. The Commissioner is also authorized to charge

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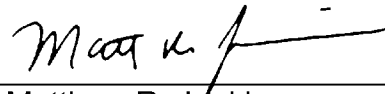
any fees which have not been previously paid for by check and which are required during the prosecution of this application to **Deposit Account No. 50-1287**.

Applicants invite the Examiner to contact the undersigned via telephone with any questions or comments regarding this case.

APPLICANTS RESPECTFULLY REQUEST AN INTERVIEW WITH THE EXAMINER IF THIS AMENDMENT DOES NOT PLACE THIS CASE IN CONDITION FOR ALLOWANCE.

Reconsideration and favorable action are respectfully requested.

Respectfully submitted,
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